

What is claimed is:

1. A printing machine for recording an image on a printing plate, and printing the image by using the printing plate
5 with the image recorded thereon, comprising:
 - a plate cylinder for supporting a printing plate as mounted peripherally thereof;
 - an image recorder having a recording head movable along a surface of said plate cylinder in a direction parallel
10 to an axis of rotation of said plate cylinder for recording an image on said printing plate mounted peripherally of said plate cylinder;
 - an ink feeder for feeding ink to said printing plate with the image recorded thereon mounted peripherally of
15 said plate cylinder;
 - a printing means for printing an image on a printing sheet by using the printing plate with an ink fed; and
 - retreat moving means, operable at a printing time, for moving said recording head to a retreat position
20 sideways from a moving region where said recording head is moved at an image-recording time.
2. A printing machine as defined in claim 1, further comprising a shielding plate disposed between said moving
25 region and said retreat position, and defining an opening for

allowing passage of said recording head.

3. A printing machine as defined in claim 2, wherein said
shielding plate is a side plate for rotatably supporting said
5 plate cylinder.

4. A printing machine as defined in claim 2, further
comprising a gas jet nozzle for forming an air curtain along
said opening as a barrier between said retreat position and
10 said moving region.

5. A printing machine as defined in claim 2, further
comprising a shielding door for opening and closing said
opening of said shielding plate.

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6. A printing machine as defined in claim 5, wherein said
shielding door is attached to a position of said recording
head opposed to said moving region when said recording
head is in said retreat position, for closing said opening of
20 said shielding plate when said recording head is in said
retreat position.

7. A printing machine as defined in claim 2, further
comprising gas flow forming means for forming a gas flow
25 directed from said retreat position toward said moving

region.

8. A printing machine as defined in claim 7, wherein said
gas flow forming means includes a chamber for enclosing
5 said recording head moved to said retreat position, said
chamber defining an opening opposed to said moving region
for allowing passage of said recording head, and a fan for
drawing a gas from outside said printing machine into said
chamber.

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9. A printing machine as defined in claim 1, further
comprising a chamber for enclosing said recording head
moved to said retreat position, said chamber defining an
opening opposed to said moving region for allowing passage
15 of said recording head.

10. A printing machine as defined in claim 9, further
comprising a gas jet nozzle for forming an air curtain along
said opening as a barrier between inside of said chamber
20 and outside of said chamber.

11. A printing machine as defined in claim 9, further
comprising a shielding door for opening and closing said
opening of said chamber.

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12. A printing machine as defined in claim 11, wherein
said shielding door is attached to a position of said recording
head opposed to said moving region when said recording
head is in said retreat position, for closing said opening of
5 said chamber when said recording head is in said chamber.

13. A printing machine as defined in claim 9, further
comprising gas flow forming means for forming a gas flow
directed from inside of said chamber toward outside of said
10 chamber.

14. A printing machine for recording an image on a
printing plate, and printing the image by using the recorded
printing plate with ink fed thereon, comprising;

15 a plate cylinder for supporting a printing plate as
mounted peripherally thereof;

an image recorder having a recording head movable
along a surface of said plate cylinder in a direction parallel
to an axis of rotation of said plate cylinder for recording an
20 image on said printing plate mounted peripherally of said
plate cylinder;

retreat moving means for moving said recording
head in a direction parallel to said axis of rotation of said
plate cylinder and positioning said recording head to a
25 retreat position which is outside of said plate cylinder, after

image-recording time;

protection means for reducing a chance of said recording head being contaminated by printing particles during a printing time.

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